

CLAIMS

1. A method of determining which types of status information to extract from a monitored device communicatively coupled to a network, comprising:

selecting a communication protocol among a plurality of communication protocols used to extract status information from the device;

retrieving, from a first memory, a protocol object associated with the selected communication protocol, wherein the protocol object includes at least a type of status information, a weight of the status information, and information for extracting the type of status information from the device using the selected communication protocol;

determining if the type of status information is present in a second memory, wherein the second memory comprises status information previously extracted from the device;

if the determining step determines that the type of status information is present in the second memory, checking whether the weight of the status information stored in the protocol object is greater than a corresponding weight associated with the status information of the same type stored in the second memory;

if (1) the determining step determines that the type of status information is not present in the second memory, or (2) if the determining step determines that the type of status information is present in the second memory, but the checking step determines that the weight of the status information is greater than the corresponding weight associated with the status information of the same type stored in the second memory, accessing the device using the selected communication protocol and the information for extracting the device contained in the protocol object to obtain the status information.

2. The method of claim 1, further comprising:

repeating the determining, checking, and accessing steps for each type of status information contained in the protocol object.

3. The method of claim 1, further comprising:

repeating the selecting, retrieving, determining, checking, and accessing steps for each protocol of the plurality of communication protocols

4. The method of claim 1, wherein the determining step comprises:

determining if the type of status information is present in a status information map in the second memory, the status information map having at least one entry, wherein each entry includes a status information type, a status information value, and a status information weight.

5. The method of claim 1, wherein the selecting step comprises:  
selecting a communication protocol among SNMP, HTTP, and FTP.

6. The method of claim 1, wherein the weight of the status information indicates a relative informative value of the status information with respect to status information of a same type extracted using another of the plurality of communication protocols.

7. A system for determining which types of status information to extract from a monitored device communicatively coupled to a network, comprising:

means for selecting a communication protocol among a plurality of communication protocols used to extract status information from the device;

means for retrieving, from a first memory, a protocol object associated with the selected communication protocol, wherein the protocol object includes at least a type of status information, a weight of the status information, and information for extracting the type of status information from the device using the selected communication protocol;

means for determining if the type of status information is present in a second memory, wherein the second memory comprises status information previously extracted from the device;

means for checking whether the weight of the status information stored in the protocol object is greater than a corresponding weight associated with the status information of the same type stored in the second memory, when the means for determining determines that the type of status information is present in the second memory;

means for accessing the device using the selected communication protocol and the information for extracting the device contained in the protocol object to obtain the status information, if (1) the means for determining determines that the type of status information is not present in the second memory, or (2) if the means for determining determines that the type of status information is present in the second memory, but the means for checking

determines that the weight of the status information is greater than the corresponding weight associated with the status information of the same type stored in the second memory.

8. The system of claim 7, wherein the means for determining comprises:  
means for determining if the type of status information is present in a status information map in the second memory, the status information map having at least one entry, wherein each entry includes a status information type, a status information value, and a status information weight.

9. The system of claim 7, wherein the means for selecting comprises:  
means for selecting a communication protocol among SNMP, HTTP, and FTP.

10. The system of claim 7, wherein the weight of the status information indicates a relative informative value of the status information with respect to status information of a same type extracted using another of the plurality of communication protocols.

11. A computer program product having a computer usable medium for determining which types of status information to extract from a monitored device communicatively coupled to a network, comprising:

instructions for selecting a communication protocol among a plurality of communication protocols used to extract status information from the device;

instructions for retrieving, from a first memory, a protocol object associated with the selected communication protocol, wherein the protocol object includes at least a type of status information, a weight of the status information, and information for extracting the type of status information from the device using the selected communication protocol;

instructions for determining if the type of status information is present in a second memory, wherein the second memory comprises status information previously extracted from the device;

instructions for checking whether the weight of the status information stored in the protocol object is greater than a corresponding weight associated with the status information of the same type stored in the second memory, when the instructions for determining determine that the type of status information is present in the second memory;

instructions for accessing the device using the selected communication protocol and the information for extracting the device contained in the protocol object to obtain the status information, if (1) the instructions for determining determine that the type of status information is not present in the second memory, or (2) if the instructions for determining determine that the type of status information is present in the second memory, but the instructions for checking determine that the weight of the status information is greater than the corresponding weight associated with the status information of the same type stored in the second memory.

12. The computer program product of claim 11, further comprising:  
instructions for repeating the instructions for determining, instructions for checking, and instructions for accessing for each type of status information contained in the protocol object.

13. The computer program product of claim 11, further comprising:  
instructions for repeating the instructions for selecting, instructions for retrieving, instructions for determining, instructions for checking, and instructions for accessing for each protocol of the plurality of communication protocols

14. The computer program product of claim 11, wherein the instructions for determining comprise:  
instructions for determining if the type of status information is present in a status information map in the second memory, the status information map having at least one entry, wherein each entry includes a status information type, a status information value, and a status information weight.

15. The computer program product of claim 11, wherein the instructions for selecting comprise:  
instructions for selecting a communication protocol among SNMP, HTTP, and FTP.

16. The computer program product of claim 11, wherein the weight of the status information indicates a relative informative value of the status information with respect to

status information of a same type extracted using another of the plurality of communication protocols.